MATHEMATICS AND STATISTICS FOR MANAGERS

OBJECTIVE: To enable the students to gain knowledge about the basic mathematical tools used in business and statistical techniques that facilitate comparison and analysis of business data.

UNIT I

Differentiation: - Derivation of Standard Functions, Addition, Difference and Product Rule, Maxima and Minima – Application of Derivatives in Business.

UNIT II

Matrices and Determinants: Definition – Basic Concepts:- Addition, Subtraction and Multiplication of Matrices – Elementary Operations:-Transpose of a matrix, Inverse, Solving equations by matrix method – Determinants and Solution of Simultaneous Linear equations.

UNIT III

Statistics – Definition – Nature – Scope and Objectives –Diagrammatic Representation – One, two, three dimensional diagrams – Graphic Representation – Histogram, Frequency Polygon, Frequency Curve, Histogram and Pie diagram – Classification and tabulation.

UNIT IV

Measures of Central Tendency: Mean, Median, Mode, Geometric Mean and Harmonic Mean – Measures of Dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation and co-efficient of variation.

UNIT V

Simple Correlation: Karl Pearson's Co-efficient of Correlation and Spearman's Rank Correlation – Simple Regression Analysis.

(Marks: Theory 40% and Problems 60%)

TEXT BOOK RECOMMENDED:

Business Mathematics – SAN CHETI & KAPOOR, S. Chand & Co. Ltd
Statistics – R.S.N.PILLAI & BAGAVATHI, Sultan Chand

BOOKS FOR REFERENCE:

Statistical Methods – S.P.GUPTA, Sultan Chand.
Business Tools and Decision Making – S.L.AGGARWAL & S.L. BHARDWAJ, Kalyani Publishers.